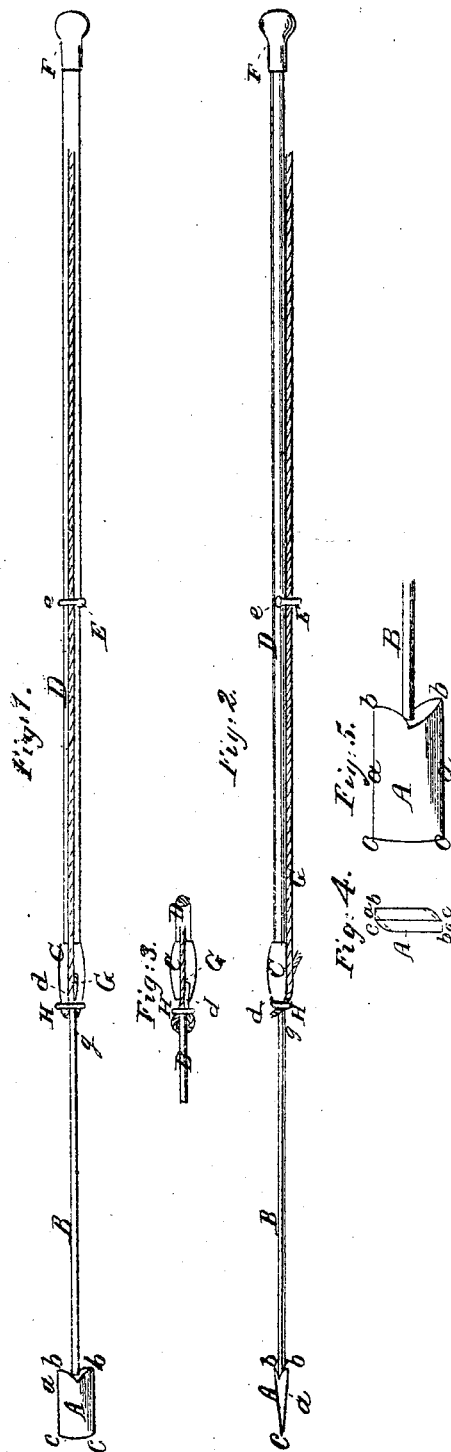


C. F. Brown,  
Bomb Lance.

No. 7610.

Patented. Sep 3 1850



# UNITED STATES PATENT OFFICE.

CHAS. F. BROWN, OF WARREN, RHODE ISLAND.

## IMPROVED METHOD OF ATTACHING LINES TO HARPOONS.

Specification forming part of Letters Patent No. 7,610, dated September 3, 1850.

*To all whom it may concern:*

Be it known that I, Captain CHARLES F. BROWN, of Warren, in the county of Bristol and State of Rhode Island, have invented certain new and useful Improvements in Harpoons used in Whale-Fishing, &c.; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a view of an improved harpoon, the face of the head being turned toward the eye. Fig. 2 is a view of the same having the side edge of the head turned toward the eye. Fig. 3 represents the end of the line bent round the harpoon, but not drawn tight. Fig. 4 represents the head, the cutting-edge being turned toward the eye. Fig. 5 is a perspective view of the head.

Similar letters of reference indicate corresponding parts in each of the several figures.

The nature of my invention consists in an improvement in the mode of securing the line to the harpoon, by which the end of any line of suitable size and strength may be quickly secured without knots or splicing.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A, Figs. 1, 2, 4, and 5, represents the head of the harpoon, which may be made of wrought-iron steeled at the cutting-edge, or of cast-iron chilled. It is of chisel form—that is, its cutting edge or point is nearly similar to that of a chisel. Its two side edges, *a a*, appear parallel when the cutting-edge is perpendicular to the line of sight, (see Fig. 1;) but when seen with the edge in the line of sight, (see Fig. 2,) they incline in opposite directions back from the point, each forming part of the thread of a very steeply-inclining screw. The back part of the head is barbed, (in Fig. 4 the shape of the back part of the head is shown in dotted lines,) and the sides of the head are each rounded off at one corner toward the point of the barb.

B is the shank, which is screwed or otherwise firmly secured in the head.

C is a cast-iron socket or butt-end, into which the back end, *g*, of the shank is firmly secured. The front end of the socket is of rounded form.

D is the pole, which is of wrought-iron, of suitable length and thickness. It is screwed into the socket or butt-end C. At a suitable distance from the end a swinging link or ring, E, is secured by a pin, *e*, passing through the pole. The end of the pole has a knob or butt, F, to form a good hold or bearing for the hand in throwing it.

G represents the end of a line. H is a metal ring, which is put on the shank B before the head or socket is put on. Its inner diameter is not sufficiently large to allow it to slip over the socket. The end of the line is passed from the back through the swinging link E and through the ring H, which is made to hang against one side of the shank, so as to leave more space between it and the ring on the opposite side. It is then bent round the shank and returned through the ring. The line being then pulled tight, as shown in Figs. 1 and 2, the ring H is brought against the rounded end *d* of the socket or butt C, and the greater the strain that is put on the line the tighter the line and the ring will clasp the shank. The opposite side of the ring to that bearing on the shank will at the same time pinch the line closely against the socket. The instant the strain is released the ring and end of the line are free to slide on the shank until the line is again tightened. The ring E confines the line to the pole while the harpoon is being projected.

The harpoon is projected by hand in the common way. As it enters the flesh, in consequence of the inclination of the side edges of the head, it will keep gradually turning, though very slightly. The side edges, not being acute enough to cut the flesh, will not work or cut the hole larger than it was cut by the point. The flesh will close over the head; and as the points *b b* of the barbs are not in line with the corners *c c* of the head, they will hold more securely, and the harpoon will not be liable to draw out.

The ordinary way of securing the line to the harpoon is by splicing what is termed a "strap" to the shank and securing the end of the line to it. Sometimes the end of the line is spliced in the form of a loop to the shank; but my improved mode of fastening allows of the end of any line of suitable size being instantly made fast directly to the harpoon, making a

more ready and an equally secure means of attachment.

What I claim as new in my invention, and desire to secure by Letters Patent, is—

The manner of attaching and securing the line to the harpoon by means of the ring H, sliding on the shank, and the rounded end *d*

of the socket or butt C, in the manner substantially as herein described.

C. F. BROWN.

Witnesses:

ALFRED BOSWORTH,  
GEO. G. HAZARD.